

REMARKS

Claims 1-20, 23-26, and 29-37 are pending in the application and are at issue.

Claim 1 has been amended to correct structure 1b in claim 1. The preliminary amendment inadvertently omitted an oxygen atom and a -CH₂- group from this structure. Support for the amendment can be found in WO 2004/087790 at page 6, lines 5-10, and in the English language specification at page 6, lines 2-4. Accordingly, no new matter has been added by this amendment.

In response to the Office Action dated April 6, 2009, applicants are required to elect one or more of the following groups of claims:

Group I, claims 1-10 and 29-33, directed to monomers;

Group II, claims 11-16, directed to a method of making monomers;

Group III, claims 17 and 18, directed to a method of using monomers;

Group IV, claims 19, 20, 26, 34, 35, and 37, directed to polymers and their use; or

Group V, claims 23-25, directed to a reaction mixture.

Applicants hereby elect the claims of examiner's Group I, namely, claims 1 through 10 and 29 through 33, inclusive, with traverse, for examination on the merits at this time. It is submitted that all claims 1-20, 23-26, and 29-37 should be examined at this time. According to PCT Rule 13, claims of different categories with common special technical features do *not* lack unity. Also, see Example 1 in PCT Gazette, page 52, Part 2 I (copy enclosed).

In the present invention, the common special technical feature in *all* claims is an ester mixture comprising at least two esters selected from compounds of formulae 1a, 1b, and 1c. There may be a lack of unity only if this common technical feature lacks novelty or is obvious. See PCT Gazette page 49, Part 1(a), (copy enclosed).

The examiner relies upon WO 93/021237 (WO '237) to argue that the monomers recited in claim 1 are known in the art. As stated above, the present claims are directed to an ester mixture comprising at least two of compounds of formulae 1a, 1b, 1c, and their use in the preparation of crosslinked hydrogels. With respect to WO '237, the reference discloses acrylic esters of alkoxyated trimethylolpropane (formula 1, on page 3, line 5 and page 5, line 28), wherein the alkoxy chain can be a random mixed or a block ethylene oxide/propylene oxide/butylene oxide chain (page 5, lines 30-36). WO '237 fails to teach or suggest a *mixture* of esters having different chain structures, as claimed. Also, and importantly, WO '237 merely discloses alkylene oxide chains of three to seven alkylene oxide units (page 3, line 14 and page 5, line 36 to page 6, line 5.) Claimed formula 1a, however, requires a minimum of more than nine alkylene oxide units per chain and the present formulae 1b and 1c each require a minimum of more than 10. Consequently, WO '237 does not anticipate the present claims, or render the present claims obvious in view of the multiple jumps in reasoning required to arrive at the present claims from the WO '237 disclosure.

Unity of invention in the present application is evidenced further by the International Search Report. In particular, *all* claims were searched and *all* claims were found to have novelty and an inventive step. The standards regarding unity of invention that apply to the International Searching Authority *also* apply to the U.S. Patent Office with respect to this application. Therefore, the unity of invention requirement is fulfilled, and any reliance upon independence or distinctness of the invention is not relevant under the PCT.

In addition, M.P.E.P. §1893.03(d) provides that when making a lack of unity of invention requirement, the examiner *must* "explain why each group lacks unity with each other group (i.e., why there is no single general inventive concept) specifically describing the unique special technical feature in each group." A group of inventions is considered linked as to form a single general inventive concept when a technical relationship exists among the inventions that involves at least one common or corresponding special technical feature. That common special technical feature is present in *all* of claims 1-20, 23-26, and 29-37.

The examiner has not provided *proper* reasons why each group lacks unity with each other group specifically describing the unique special technical feature in each group as required in M.P.E.P. §1893.03(d). The examiner has considered the type of claims,

i.e., monomers, method of making monomers, method of using monomers, polymers and their use, and a reaction mixture containing the monomers, without considering the special technical features recited in, and common to, each claim, as set forth above.

The groups do not lack unity of invention with each other. For example, Groups III-V recite mixtures containing the monomers of Group I and polymers prepared using the monomers of Group I. Group II recites methods of preparing the monomers of Group I. Therefore, for all the reasons set forth above, Groups I-V have unity of invention. It is particularly submitted that Groups I and III-V have unity of invention, and at least these four Groups should be examined at this time.

In addition, even if unity of invention arguably is lacking, no evidence exists that a search and examination directed to all claims would be a *serious burden* on the examiner, as is required by M.P.E.P. §803. ("If the search and examination of an entire application can be made without serious burden, the examiner must examine it on the merits, even though it includes claims to independent or distinct inventions." and "There must be a serious burden on the examiner if restriction is not required.")

Because search and examination of the entire application can be made without serious burden on the examiner, it would be wasteful of the time, effort, and resources of both the applicants and the Patent Office to prosecute the monomer, process, polymer, and mixture claims in separate applications. Search and examination of all groups of claims in a single application would be much more efficient than requiring the Patent Office to prosecute the monomer, process, polymer, and mixture claims in separate applications. Search and examination of all groups of claims in a single application would be much more efficient than requiring the Patent Office and applicants to do so in separate applications. Accordingly, it is submitted that all claims, and at least the claims of Groups I and III-V, should be examined at this time.

Reconsideration and withdrawal of the restriction requirement are respectfully requested. An early action of the merits on all claims is solicited.

Should the examiner wish to discuss the foregoing, or any matter of form in an effort to advance this application toward allowance, the examiner is urged to telephone the undersigned at the indicated number.

Dated: May 4, 2009

Respectfully submitted,

By 

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S-03/2001 (E)
30 August 2001

PCT Gazette - Section IV

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ANNEX B UNITY OF INVENTION

Part 1

Instructions Concerning Unity of Invention

(a) **Unity of invention.** Rule 13.1 deals with the requirement of unity of invention and states the principle that an international application should relate to only one invention or, if there is more than one invention, that the inclusion of those inventions in one international application is only permitted if all inventions are so linked as to form a single general inventive concept.

(b) **Technical Relationship.** Rule 13.2 defines the method for determining whether the requirement of unity of invention is satisfied in respect of a group of inventions claimed in an international application. Unity of invention exists only when there is a technical relationship among the claimed inventions involving one or more of the same or corresponding "special technical features." The expression "special technical features" is defined in Rule 13.2 as meaning those technical features that define a contribution which each of the inventions, considered as a whole, makes over the prior art. The determination is made on the contents of the claims as interpreted in light of the description and drawings (if any).

(c) **Independent and Dependent Claims.** Unity of invention has to be considered in the first place only in relation to the independent claims in an international application and not the dependent claims. By "dependent" claim is meant a claim which contains all the features of another claim and is in the same category of claim as that other claim (the expression "category of claim" referring to the classification of claims according to the subject matter of the invention claimed—for example, product, process, use or apparatus or means, etc.).

(i) If the independent claims avoid the prior art and satisfy the requirement of unity of invention, no problem of lack of unity arises in respect of any claims that depend on the independent claims. In particular, it does not matter if a dependent claim itself contains a further invention. Equally, no problem arises in the case of a genus/species situation where the genus claim avoids the prior art. Moreover, no problem arises in the case of a combination/subcombination situation where the subcombination claim avoids the prior art and the combination claim includes all the features of the subcombination.

(ii) If, however, an independent claim does not avoid the prior art, then the question whether there is still an inventive link between all the claims dependent on that claim needs to be carefully considered. If there is no link remaining, an objection of lack of unity *a posteriori* (that is, arising only after assessment of the prior art) may be raised. Similar considerations apply in the case of a genus/species or combination/subcombination situation.

(iii) This method for determining whether unity of invention exists is intended to be applied even before the commencement of the international search. Where a search of the prior art is made, an initial determination of unity of invention, based on the assumption that the claims avoid the prior art, may be reconsidered on the basis of the results of the search of the prior art.

(d) **Illustrations of Particular Situations.** There are three particular situations for which the method for determining unity of invention contained in Rule 13.2 is explained in greater detail:

- (i) combinations of different categories of claims;
- (ii) so-called "Markush practice"; and
- (iii) intermediate and final products.

Principles for the interpretation of the method contained in Rule 13.2, in the context of each of those situations are set out below. It is understood that the principles set out below are, in all instances, interpretations of and not exceptions to the requirements of Rule 13.2.

Examples to assist in understanding the interpretation on the three areas of special concern referred to in the preceding paragraph are set out below.

(j) Rule 13.3 is not intended to constitute an encouragement to the use of alternatives within a single claim, but is intended to clarify that the criterion for the determination of unity of invention (namely, the method contained in Rule 13.2) remains the same regardless of the form of claim used.

(k) Rule 13.3 does not prevent an International Searching or Preliminary Examining Authority or an Office from objecting to alternatives being contained within a single claim on the basis of considerations such as clarity, the conciseness of claims or the claims fee system applicable in that Authority or Office.

Part 2

Examples Concerning Unity of Invention

The application of the principles of unity of invention is illustrated by the following examples for guidance in particular cases.

I. Claims in Different Categories

Example 1

Claim 1: A method of manufacturing chemical substance X.

Claim 2: Substance X.

Claim 3: The use of substance X as an insecticide.

Unity exists between claims 1, 2 and 3. The special technical feature common to all the claims is substance X.

Example 2

Claim 1: A process of manufacture comprising steps A and B.

Claim 2: Apparatus specifically designed for carrying out step A.

Claim 3: Apparatus specifically designed for carrying out step B.

Unity exists between claims 1 and 2 or between claims 1 and 3. There is no unity between claims 2 and 3 since there exists no common special technical feature between the two claims.

Example 3

Claim 1: A process for painting an article in which the paint contains a new rust inhibiting substance X including the steps of atomizing the paint using compressed air, electrostatically charging the atomized paint using a novel electrode arrangement A and directing the paint to the article.

Claim 2: A paint containing substance X.

Claim 3: An apparatus including electrode arrangement A.

Unity exists between claims 1 and 2 where the common special technical feature is the paint containing substance X or between claims 1 and 3 where the common special technical feature is the electrode arrangement A.

However, unity is lacking between claims 2 and 3 since there exists no common special technical feature between them.